

NORTHWOODS JOURNAL — JANUARY 2022

A Free Publication about Enjoying and Protecting Marinette County's Outdoor Life

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Hey 4-6th Graders - Participate in the WDNR's 2022 'Keep Wildlife Wild' Poster Design Contest!

<https://dnr.wisconsin.gov/newsroom/release/51906> and <https://dnr.wisconsin.gov/topic/WildlifeHabitat/posterdesigncontest.html>



Participate in the WI Department of Natural Resources fourth annual *Keep Wildlife Wild* poster contest! The poster design contest is open to 4-6th grade students who attend public, private, parochial or home schools in Wisconsin. The deadline for submitting posters is 5 p.m. on **February 18, 2022**.

The *Keep Wildlife Wild* program began in 2014 to spread the word about our shared role in keeping all wildlife healthy in its natural habitat. The contest's goal is to create a poster that teaches the importance of enjoying and observing wildlife in the wild and *not* keeping wildlife in homes or as pets.

During the warmer months of spring and summer, the frequency of human and wildlife encounters increases, especially those involving young wild animals. While most of these encounters are harmless, there are times when well-intentioned people disrupt wildlife because they mistake a lone baby animal for an orphan.



The *Keep Wildlife Wild* poster contest is a fun way for kids to help spread the important message to keep wildlife wild. The DNR encourages students to find out how they can help keep wild animals in Wisconsin safe and healthy on the [Keep Wildlife Wild webpage](#). Students can learn to turn their ideas into a piece of art.

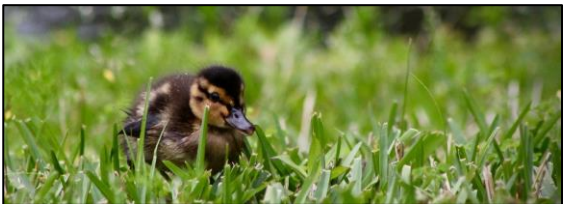


Judging will take place in March. Those who submitted designs will be notified by email of winners during the first week of April. The DNR will also announce winners during the fifth annual *Keep Wildlife Wild* Week in April.

All submissions must be received electronically via email or by mail and must include the student's entry form and artwork by **5 p.m. on Feb. 18, 2022**.

Submit entries to:

Wisconsin Keep Wildlife Wild Poster Design Contest
Department of Natural Resources
Attn: Amanda Kamps
225051 Rib Mountain Dr.
Wausau, WI 54401
Email: keepwildlifewild@wisconsin.gov



POSTER CONTEST RULES:

- The poster entry **must contain the words:** "Keep Wildlife Wild 2022" and follow the theme of: "If you care, leave them there!"
- All posters **must consist of original artwork** of **Wisconsin native** wildlife.
- Posters must **fit an 8 1/2" x 11"** sheet of paper.
- Posters must be submitted **individually**; no team creations.

[For a complete list of rules and requirements, please visit the DNR's Keep Wildlife Wild 2022 Poster Design Contest webpage.](#)

Any entry that fails to comply with the contest's requirements will be disqualified and won't be considered by the judging panel.

Educators can find *Keep Wildlife Wild* resources, including a lesson plan and PowerPoint featuring a script and an in-class interactive activity that teaches students about the initiative, on the [Keep Wildlife Wild webpage](#) under Teaching Tools for Grades 4-6 near the bottom of the page.



Printed Northwoods Journals to Return this Summer in Marinette County



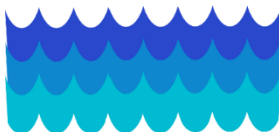
The June-September issues of the Northwoods Journal will return as a printed newspaper this summer and will be available at various locations throughout Marinette County. In 2020 and 2021, we didn't print and deliver them due to COVID.

Printed newspaper format issues will be available at several campgrounds, restaurants, gas stations, libraries, tourism centers, and businesses throughout the County. Copies will also be available at the County Courthouse and the County Resources Center in Marinette.



Wisconsin Salt Awareness Week – January 24-28

<https://www.wisaltwise.com/>



Wisconsin Salt Wise

WI Salt Wise is a coalition of organizations from across Wisconsin working together to reduce salt pollution in our lakes, streams and drinking water. Our primary goals are to: educate residents, leaders and winter maintenance professionals on salt pollution and solutions, provide training and promote best practices to reduce salt pollution and recognize contractors committed to using the [right amount](#) of salt for conditions.

We rely on salt to keep our roads safe in the winter and to [soften water in our homes](#) year-round but using more salt than is needed comes with a [heavy price](#). In Wisconsin and much of the United States, chloride from salt is infiltrating into our lakes, streams and groundwater.

It only takes 1 teaspoon of salt to pollute 5 gallons of water to a level that is toxic for freshwater ecosystems. We can all work together to use the [right amount](#) of salt!

Oversalting

A 12-ounce coffee mug full of salt is enough to treat a 20-foot driveway or 10 sidewalk squares. If scattered correctly, the pattern should look like the "correct" image below.

Correct amount of salt:



Incorrect – oversalting (next two photos):

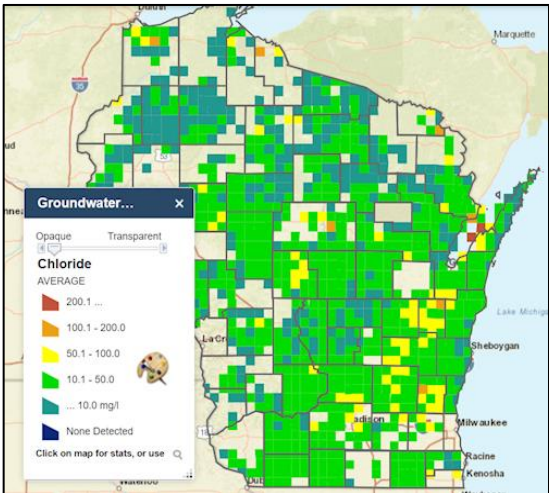


If you see oversalting, you can use the tools and information on our [Partner Resources](#) page to help educate others about salt. Ask your favorite local businesses to encourage their contractor to get certified through the [Winter Salt Certification Program](#) and share this [handout](#) with them.

Hidden Costs of Oversalting

Once salt is in the environment it doesn't go away. It ends up in our lakes, rivers, streams and wetlands. Chloride from salt degrades freshwater ecosystems. It only takes 1 teaspoon of salt to pollute 5 gallons of water to a level that is toxic to native aquatic organisms (395 mg/L). Naturally occurring concentrations of chloride are >1 mg/L throughout most of Wisconsin, but our surface water, groundwater and soil have been absorbing virtually all of the salt spread in the state for more than six decades.

The widespread use of salt has led to the steady salinization of surface water and groundwater, threatening freshwater resources and our drinking water.



Chloride concentrations in groundwater. Red, orange and yellow indicate clear anthropogenic salinization. Natural concentrations indicated by teal (<10mg/L).

Removing salt from water is cost-prohibitive. Once salt gets into water it is very difficult to remove. Treatment, like reverse osmosis or ion exchange, is costly to install and even more expensive to operate. It could cost millions or even billions of dollars, so preventing salt from entering our drinking water resources in the first place is the most cost-effective solution.

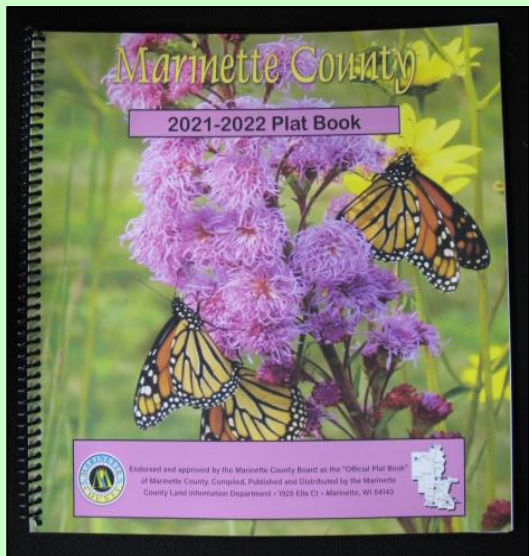
Salt weakens the concrete, brick and stone that make up our homes, garages, bridges, and roads. One ton of rock salt causes between \$800 and \$3,300 of damage to buildings, bridges and other infrastructure ([source](#)). Nationwide, we spend over \$5 billion annually to repair salt damage to roads and bridges and we're not keeping up ([source](#)).

Road and sidewalk salt can irritate your pets' toes, feet, and skin. Problems can also arise if a dog eats salt or licks their paws after a walk. Excess salt can cause toxicity concerns, throw off their electrolyte balance, or cause hypertension, cardiac arrhythmias, vomiting, increased urination, increased thirst, muscle tremors, or seizures. Keep your pets healthy by shoveling first, and applying only the right amount of salt to keep sidewalks safe.

Salt can stress plants and animals that have adapted to freshwater environments. Before reaching lethal levels, chloride (the negative ion in sodium chloride - NaCl), has a variety of direct and indirect impacts on the health of organisms in aquatic ecosystems. **Visit the website for more information about how you can use less salt to help protect our waters!**



2021-2022 Official Marinette County Plat Books Have Finally Arrived!



2021-2022 Plat Books are now available for purchase. The cost for the plat book is \$35.00 when picked up at the Land Information Department office, located on the second floor of the Marinette County Resource Center in Marinette.

The plat book is 11 x 11 inches and inside are aerial photos opposite the map page with LIDAR! 'Lidar' = 'Light detection and ranging' which is an optical remote-sensing technique that uses laser light to densely sample the surface of the earth, producing highly accurate x,y,z measurements!

If you live out of town or are unable to get to the courthouse during business hours, there is an order form available on the Marinette County website that you can print out. Just go to www.marinettecounty.com - look under *News* (located at the left-hand side of the bottom of the home page) and follow the directions to get to the form. It's also available on the main Land Information Department website. The form is now fillable so you can fill it out before you print! The cost to mail the plat book is \$40.00 with shipping and handling.

The Land Information Department is located on the second floor of the Marinette County Resource Center (below) in Marinette (1925 Ella Court), next to the County Courthouse. Angle parking is available on Ella Court, in the Mariner Theater parking lot, and the lot next to the Krist gas station.



Business hours are Monday - Friday 8:00 a.m. to 4:30 p.m. For more information or questions about the plat book, please call 715-732-7780.



Prescription Outdoors – Beat the Winter Blues with a Healthy Dose of Fresh Air

https://issuu.com/wisconsinnaturalresources/docs/wnr_winter_2021_final/s/14226521



The change in seasons from fall to winter can also bring a change in mood. Winter in Wisconsin can create the perfect recipe for melancholy: a sprinkle of bitter cold that limits outdoor activity, a dash of overcast days affecting your vitamin D and a pinch of prolonged darkness impacting one's circadian rhythm.

As the temperature drops and the days get darker and shorter, so too comes the battle with *seasonal affective disorder*, or SAD, a type of depression that generally arrives in fall or winter, then departs in spring. "Historically, 4% to 6% of people experience seasonal affective disorder, while 10% to 20% have a milder form, those winter blues," said Shilagh Mirgain, Ph.D., a psychologist at the University of Wisconsin School of Medicine and Public Health in Madison.



Unlike the winter blues, a non-medically diagnosed, sporadic and shorter-lived feeling associated with winter, SAD is clinically diagnosed, lasts for at least two weeks and is a milder version of more severe depression. According to Mirgain, if the seasons start to change and you begin to feel down or disinterested in activities, have problems sleeping, experience fluctuating weight and appetite or have difficulties concentrating, you may be experiencing SAD.

"These are all symptoms of seasonal affective disorder," Mirgain explained. "People might have some of those symptoms if they have winter blues but not as persistent. They may have a few days where they feel these symptoms, or they may pop up here or there during the winter."

BENEFITS OF THE OUTDOORS

While the elements are something beyond control, your environment or activities can

change, significantly improving your mental health. Over the past 16 years, Mirgain has dedicated her clinical practice to treating patients who experience myriad mental health setbacks, and SAD is no exception. She and other psychologists have studied nature's effects on mental health and improving one's mood. The data suggests that being outside, even for short lengths of time, can go a long way for a person who may be experiencing depression.



"There is so much research that shows even a little time in nature, as little as five to 10 minutes, can really do wonders in boosting mood and can help us feel more vitality and mental clarity," Mirgain said. "I often say that nature can offer something above and beyond what human connection can." There are benefits to getting outdoors, even in winter. "It might just be going out for a shorter period of time, or on a nicer winter day, going out for a walk and having hot chocolate afterwards," she said. "It just might take some extra effort."



PARKS ARE PERFECT REFUGE

With the pandemic, Wisconsinites have flocked to state properties for a safe respite. The DNR has welcomed over 3.2 million more visitors to state parks this year than in 2019, and sales of park passes have increased by 42% over two years ago. Park pass sales were even higher in 2020, during the height of the pandemic.

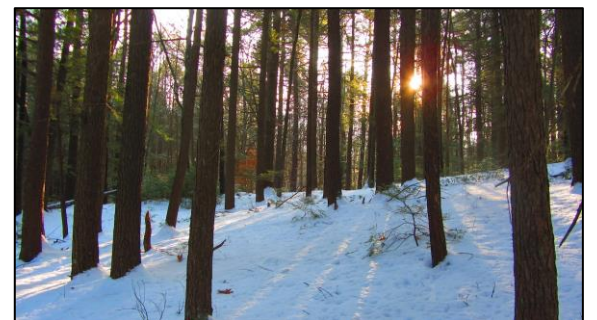
Wisconsin is home to 49 state parks, 15 state forests, 44 biking trails, more than 5,000 campsites and thousands of acres for adventure available year-round. "From candlelight hikes to cross-country skiing events, all of our properties have winter activities that everyone can get out and enjoy," said Steve Schmelzer, DNR parks director. "The landscape is completely different in winter, giving visitors a unique perspective of their favorite properties."



According to Schmelzer, one of the most popular nature-based winter activities Wisconsinites enjoy is hiking, which only requires a good pair of boots and, in cold weather, lots of layers. "Make sure you have a plan and dress for the weather," he said. "Don't let the winter keep you from visiting. There truly is something for everyone."

GETTING MINDFUL IN NATURE

There is still hope for those adamantly against going outdoors in bitter weather or limited in their access. "Seeing images of nature may give us some of the same benefits," Mirgain said. "So even if it's a really stormy winter day, having photographs of nature or maybe even watching a nature documentary can also give you some benefits."



Research suggests that meditative practice can also help improve one's state of mind, which is why yoga therapy and mindfulness meditation instructor Tina Langdok encourages the practice of mindfulness in nature. "Mindfulness is an intentional focus on the present, which reduces stress and cultivates awareness of patterns that might be keeping us closed in or not getting outside as much," said Langdok, owner and founder of Trillium Studio in Milwaukee. Her yoga studio offers mindfulness-based practices for health and well-being.

"Nature is a great place to be mindful," she said. "We miss out on a lot of experiences because our minds are often stuck on autopilot. "If we bring mindfulness to nature and spend time more in our senses, the more deeply we get engaged in our surroundings. We feel the air and we hear the birds, which are all rich layers of nature."

IMPORTANT PERSPECTIVE

The benefits of being mindful in nature have a lot to do with the feeling of awe we may get when viewing something out of the ordinary. "Nature definitely helps lower the stress hormones in the system like cortisol, which can improve thinking, vitality and boost one's mood," Mirgain explained. "I think you also have to look at the psychology of awe and all the benefits received when you experience it. "Awe typically is found in nature. When we're feeling awe and connected with nature, it also helps us revise our sense of ourselves."



Continued next page



Northwoods Journal Online

Would you like to read current issues of the *Northwoods Journal* online? Go to www.marinettecounty.com and search for "Northwoods Journal". We can also send you an e-mail reminder when each new issue is posted online. Contact Anne Bartels, Information & Education Specialist at 715-732-7784 or email abartels@marinettecounty.com.

Prescription Outdoors, continued

Getting outdoors can help refocus the mind away from the dreariness of winter to a fresher, more holistic perspective. “We get out of the ‘me’ and into the larger ‘we’ and see our place much differently,” Mirgain said. “We gain perspective as we see a tree that may have been there for hundreds of years or experience the silence in the dormancy of winter. “That can all help us take stock of our lives and help us recognize the impermanence, but also how nothing ever stays the same. Problems do resolve; there is hope for our situations.”

Getting outside in the winter may be no easy task and certainly is not the complete cure for SAD, the winter blues or other mental health setbacks. Nature, however, can be a great way to cope with the onset of symptoms that come with the changes in season.

Enjoying nature also is one way to encourage caring for it. “I often say that what we value, we protect,” Mirgain said. “If we can instill into the next generation the value and immense benefits of nature, they’re more likely to protect the outdoors.”



Interested in learning more? Listen to the DNR’s Wild Wisconsin — Off the Record podcast “Logging Off – Outdoors and Your Mental Health,” featuring additional insight from psychologist Shilagh Mirgain on the benefits of getting outdoors at <https://share.transistor.fm/s/5a278fbe>.

TIPS TO HELP STOP THE SADNESS

Mirgain suggests giving these options a try to help relieve seasonal affective disorder, known as SAD:

➤ Vitamin D

During Wisconsin’s winter months, the sun’s rays and resulting vitamin D are significantly reduced. Studies have shown that vitamin D deficiency is linked to depression. You can buy vitamin D supplements or get a boost from certain foods like tuna, cheese and egg yolks.

➤ Proper Diet

Research shows that dietary intervention and nutrition play a role in alleviating the severity of seasonal affective disorder. We crave carbohydrates, processed foods or sugary treats that come with cold-weather holidays. But spikes in sugar can make us sluggish, groggy and unwell. Stay hydrated and eat a well-balanced diet to get good protein, fruits and vegetables.



➤ Work Toward a Goal

“One of the best things to do to boost our mood is feeling that sense of purpose and progress toward a goal,” Mirgain suggests. Projects can be as simple as putting together a puzzle, taking care of a small plant, or building a snowman. Set daily, weekly and monthly goals.



➤ Light Therapy

Mirgain recommends a lightbox as an effective way to boost your mood. “A lightbox that has 10,000 lux of light can be very helpful to look at for about 20 minutes in the morning as during the wintertime, we have shortened daylight hours, which can disrupt our natural circadian rhythm.” Speak with a physician before purchasing a lightbox, making any significant exercise or dietary changes, including supplements, or if your seasonal symptoms are persistent or severe.



For more about SAD and tips to lessen its effects, visit:

- ✓ <https://www.unitypoint.org/livewell/article.aspx?id=987982c3-cb7c-409f-a897-dcad244d71ca>
- ✓ <https://www.hopkinsmedicine.org/health/conditions-and-diseases/seasonal-affective-disorder>
- ✓ <https://www.aetna.com/health-guide/how-to-manage-seasonal-depression.html>
- ✓ <https://www.mayoclinic.org/diseases-conditions/seasonal-affective-disorder/diagnosis-treatment/drc-20364722>
- ✓ <https://wanderlust.com/journal/9-ways-to-beat-sad/>
- ✓ <https://www.everydayhealth.com/depression/treatment/ways-to-ease-seasonal-depression/>



DNR Asks Public to Report Black Bear Den Locations for New Research Study

<https://dnr.wisconsin.gov/newsroom/release/51936>



MADISON, Wis. – The Wisconsin Department of Natural Resources (DNR) asks the public to report any black bear den locations they find across Wisconsin to support a new research study.

Conducted by the department’s Office of Applied Science, the study will analyze the reported dens and generate estimates of reproductive rates within each bear management zone. These estimates will improve the accuracy of the population models for those zones.

Wisconsin is home to a thriving black bear population estimated at more than 24,000 bears. The black bear’s primary range is in the northern third of the state, but healthy black populations also occur in central and western Wisconsin. The range continues to expand outside the traditional bear range in the north due to an abundant population and suitable bear habitat that has facilitated southerly movement.

The DNR periodically reevaluates portions of its animal species population models, including black bears, to determine how many new black bears there are each year based on estimates of the average litter size, litter frequency and cub survival rates.

Black bear dens are often difficult to locate, making public reporting essential to collecting data to support the study and increase the accuracy of the black bear population model. Known dens from prior years can be useful if they are still in use, and the public is encouraged to report as much information about the den’s location and recent use as possible.

The DNR’s researchers have begun working with local and federal biologists, tribal partners and the general public to locate black bear dens. In late winter, research staff will collar female black bears and collect data at each den, including recording the sex, weight and body measurements of the sow and cubs.



More information about the DNR’s wildlife research projects is available here: <https://dnr.wisconsin.gov/topic/research/wildliferesearch.html>.

Learn more about black bear ecology, history and management in Wisconsin and to review the 2019-2029 Wisconsin Black Bear Management Plan on the DNR website: <https://dnr.wisconsin.gov/topic/hunt/bear>.

Contact: Jennifer Price-Tack, DNR Large Carnivore and Elk Research Scientist
jennifer.pricetack@wisconsin.gov
715-499-1097



Where Do Birds Go During a Storm?

<https://www.birdsandblooms.com/gardening/attracting-butterflies/attracting-birds-wildlife-extreme-weather/>



A tufted titmouse perched in the snow

Just like people, animals seek shelter during extreme weather. It doesn't matter if you're dealing with a blizzard, lightning storm or heat wave - wild creatures need places to go. Birds recognize changes in air pressure, which are often signs that weather is about to change, according to birding experts Kenn and Kimberly Kaufman. If they sense an approaching storm, they tend to forage more, often coming to feeders for the easiest source of food.

When bad weather hits, birds generally seek shelter from wind and rain in dense shrubs or thickets, next to heavy tree trunks, and on the downwind side of woods and forests. Cavity-nesting birds hunker down in nest boxes and natural cavities to ride out storms. Providing this important component of habitat is a lot easier than you might think. Take a look at some of the ways you can help birds when it storms in your own backyard.



An eastern screech owl rests in a tree cavity

Plants for Protection for Birds in Storms

The same [native plants](#) that provide food for wildlife in the form of [berries](#), seeds, nuts and nectar will do double duty and provide shelter if you plant them densely. Evergreens are particularly valuable, since their foliage remains green year-round. Here's a good rule of thumb: The more plants you have and the more densely you plant them, the more [protection you'll be providing for wildlife](#).

Group Shrubs Together

Imagine a bare expanse of lawn dotted with a few isolated shrubs - a typical landscape in lots of places. Not much shelter for wildlife, right? Now imagine those shrubs connected by patches of wildflowers, or even more shrubs, forming a living fence that birds and animals can use as a safe hiding place or corridor through the otherwise open landscape.



Blue jay in a winterberry shrub

Leave Dead Trees Standing for Cavity Nesters

Sometimes providing shelter means simply protecting or enhancing mature plantings that are already there. If you have large trees in your yard, don't remove them. Even better, add smaller understory trees and shrubs to take advantage of vertical space, creating layers of shelter. Dead and dying trees, called snags, are particularly important. As snags decay, they lose branches and cavities form. Add that to the holes woodpeckers excavate, and you could have all sorts of animals taking up residence.

Make a Brush Pile for Wildlife

Beyond your plantings, you can also assemble simple structures that wildlife will use for refuge. Brush piles mimic fallen woody debris found in natural areas; build them by lining up a series of parallel logs, then layering successively smaller branches on top. This will give you a domelike structure filled with spaces that wildlife as large as foxes and as small as [mourning cloak butterflies](#) will take advantage of.



A white-throated sparrow in a brush pile

Pile Up Rocks

You can do the same thing with rocks by stacking smaller stones on and around bigger ones to create mini-caves and crevices. Try doing this along your property line to make a rock wall. Just be sure to stack the rocks without using mortar, which would eliminate those valuable hiding places.

Put Up a Roosting Box for Shelter from Storms

You can also buy or build special roosting boxes designed to provide instant shelter. These look like nesting boxes or birdhouses for birds, but they have entry holes toward the bottom to help the box retain heat in winter. Many critters will use a roosting box in all seasons, including flying squirrels, tree frogs, and songbirds like bluebirds, chickadees and titmice.



For more about providing winter habitat for birds and other wildlife, see the websites below:

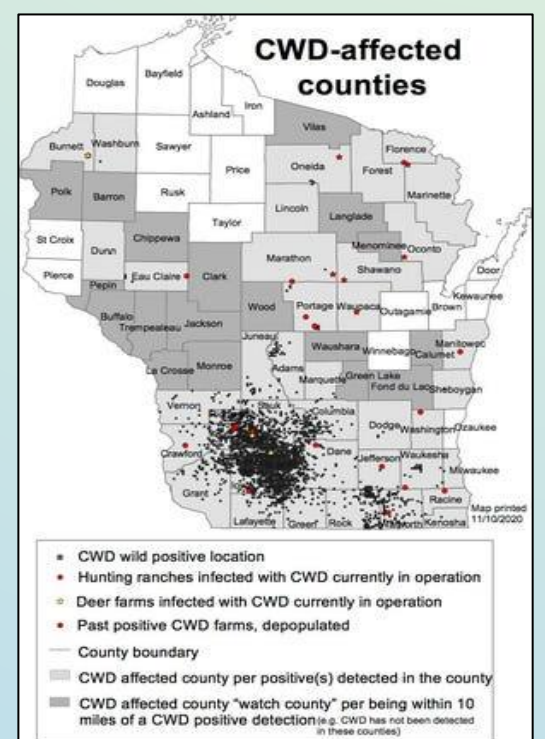
- ✓ <https://blog.nwf.org/2014/12/winter-berries-for-birds/>
- ✓ <https://www.motherearthgardener.com/organic-gardening/feeding-winter-birds-zm0z19wzbut/>
- ✓ <https://www.birdsandblooms.com/birding/attracting-birds/plants-and-trees-that-attract-birds/berries-birds/>
- ✓ <https://www.allaboutbirds.org/news/how-birds-survive-the-cold-feathers-food-warmth/>
- ✓ https://www.washingtonpost.com/lifestyle/kidspost/how-do-birds-survive-cold-winters/2020/01/21/3cde4e4e-37b6-11ea-9541-9107303481a4_story.html

Chronic Wasting Disease Bill Passes House

<https://wildlifemanagement.institute/brief/december-2021/chronic-wasting-disease-bill-passes-house>

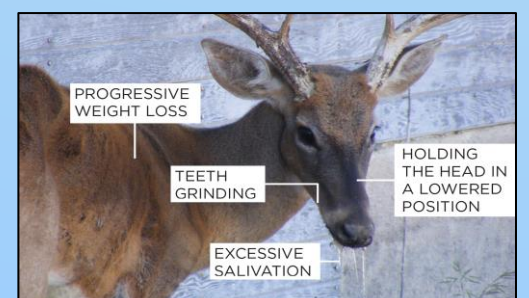
On December 8, the U.S. House of Representatives passed the CWD Research and Management Act ([H.R. 5608](#)) by a vote of 393-33. The legislation, sponsored by Representatives Ron Kind (D-WI) and GT Thompson (R-PA), authorizes \$70 million in total spending (\$35 million each to research and management efforts) and requires 75% of the management funding be directed to state and tribal wildlife agencies.

H.R. 5608 was introduced in October and unanimously passed the House Agriculture Committee shortly after introduction. The bill will authorize funds to states to help manage existing CWD outbreaks and to provide rapid response funding for detections in new populations.



In addition, the bill would provide increased funding for research to improve testing and disease containment mechanisms, including the development of live animal or environmental testing and ways to decontaminate infectious prions. Another important provision directs the Secretary of Agriculture to review the Herd Certification Program standards including those that help minimize or eliminate the interaction between wild and captive deer.

Chronic wasting disease (CWD) is a [prion disease](#) that affects deer, elk, reindeer, sika deer and moose. It has been found in some areas of North America, including Canada and the United States, Norway and South Korea. It may take over a year before an infected animal develops symptoms, which can include drastic weight loss (wasting), stumbling, listlessness and other neurologic symptoms. CWD can affect animals of all ages and some infected animals may die without ever developing the disease. CWD is fatal to animals and there are no treatments or vaccines (excerpt from <https://www.cdc.gov/prions/cwd/index.html>)



For more about CWD in Wisconsin, visit <https://dnr.wisconsin.gov/topic/wildlifehabitat/cwd.html>.



Time for a Winter Wood Stove Check-up

https://content.govdelivery.com/accounts/MIDNR/bulletins/300a6fc#link_16



When snowflakes begin to float down from the cold winter sky, tendrils of woodsmoke lazily unfurl upward from crackling wood stoves. For many in the upper Midwest, heating with wood is a way of life.

If you're lighting a wood stove for the winter season, take 15 minutes to do an annual checkup using tips provided by the DNR and the U.S. Environmental Protection Agency. While you're at it, also test your smoke and carbon monoxide alarms.

Placement

Check to see that there is adequate space between the stove and nearby furniture and walls. The stove should not touch or overheat anything around it. A protective, fireproof hearth pad should be installed underneath the stove to protect the floor and catch hot embers that could spill out.



Glass

If your stove has a glass window, it can tell you a lot about the stove's condition. Glass that dirties quickly is a sign of poor combustion. The two main causes are a stove that is not getting enough air or wood that is too wet. Water content in wood, which can be measured with a moisture meter, should be under 20% before burning. Also check for cracked glass and have it replaced to avoid leaking smoke into the home.

Firebox

Most stoves are lined with firebrick. A cracked firebrick lining is okay, but if some is missing or crumbling, it should be replaced. Besides assessing the lining, look at gaskets around the door of the stove to ensure a tight fit.

Regularly clean ashes from the stove using metal tools and a metal bucket that won't melt, and keep ashes away from combustible materials until cold enough for disposal.

Stovepipe and chimney

Black drips or buildup on the stovepipe leading out of the home are a red flag. They can indicate dangerous creosote buildup or that the pipe was installed upside-down.

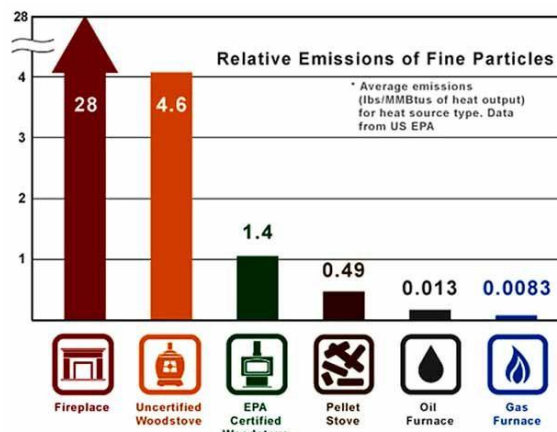
After reviewing the stovepipe, go outside and look at the chimney. It should be covered from the elements and be free of creosote buildup.

Creosote on the exterior can indicate flue problems.



Certification

A metal label located on the back of the stove shows whether it complies with current EPA standards – view the [EPA Certified Wood Heater database](#) to see if it's time for an upgrade. Newer stoves can be more efficient than older models, saving fuel and burning cleaner.



For more safety and efficiency tips, visit the [EPA Burn Wise webpage](#). For more about firewood rules and resources in Wisconsin, visit <https://dnr.wisconsin.gov/topic/Invasives/firewood.html>.

In Marinette County, you can purchase a fuelwood permit from the Parks Department for \$25.00 annually. The permit allows you to cut downed and standing dead wood (subject to conditions listed) on Marinette County forest lands. Due to OSHA regulations, you cannot cut fuelwood on active logging jobs. Since fuelwood cutting maps are not provided you will have to be sure you are on County Forest land. This can be determined with a plat book or a county map which is available free from our office or from most businesses located in Marinette County.

Please note that fuelwood cutting is allowed on County Forest land only and is not allowed on County-owned lands that are not part of the county forest. The most important thing for you is to read the conditions on your permit. There is a hefty fine of over \$500 for violations.

To purchase a fuelwood permit, visit https://www.marinettecounty.com/parks/permits_and_passes/general/fuelwood_permit/ or visit the Parks office at 1926 Hall Avenue (in the County Courthouse), Marinette WI 54143. For questions, call 715-732-7102.



Not all Evergreens are Conifers, and not all Conifers are Evergreen

<https://naturenet.org/dec-2021/>



Eastern White Pine

Though the words “conifer” and “evergreen” are often used interchangeably, not all evergreens are conifers, and not all conifers are evergreen.

“Evergreen” is a non-scientific term used to describe plants that maintain their leaves or needles throughout the seasons, whereas “conifers” are cone-bearing trees or shrubs. To simplify the matter, all Wisconsin evergreens are conifers (unlike in tropical forests where many trees are evergreen and even in parts of the United States where broadleaf plants like holly, ivy and bay laurel are evergreen).

Coniferous female cones, made from modified scales, are devised to protect developing seeds (and that's exactly what green or closed cones do). When the seeds are matured and ready to hit the ground, the cone scales open and release them to the wind or to animals. Male cones, incidentally, do exist but are generally small and, after releasing pollen, are shed.

Conifer confusion often also exists with tree and shrub names. Although it seems daunting to learn their Latin names, in the case of conifers, eliminating common names often clears confusion. For example, the Juniper (genus *Juniperus*) which by the way is indeed a conifer despite its berry-like fruits (those are actually modified, fleshy scales), is also known as the Eastern Red Cedar. Meanwhile, the Northern White Cedar (below) is not only in an entirely different genus (*Thuja*) it also goes by the common name Arbor Vitae. Learn more about the difference between Junipers and Cedars from [Treehugger](#).



In the “not all conifers are evergreen” department, Wisconsin's example is the Tamarack (genus *Larix*), also known as the Larch (below). Aldo Leopold describes this tree as “smoky gold” because its needles change to a golden hue before dropping to the ground each fall (a deciduous conifer).



For more about Wisconsin tree identification, visit:

- <https://www.uwsp.edu/cnr-ap/leaf/Pages/TreeSpecies.aspx>
- <https://www.eekwi.org/plants/forever-green>



Preventing the Arrival of Hemlock Woolly Adelgid in Wisconsin

<https://dnr.wisconsin.gov/topic/foresthealth/adelgid>

Hemlock woolly adelgid (*Adelges tsugae*) is a tree-killing insect that was accidentally introduced to eastern North America. ***It is a threat to Wisconsin's eastern hemlocks in Wisconsin if it arrives here. It has been found in southwestern Michigan*** (Allegan, Ottawa, Muskegon, Oceana and Mason counties). Learn where this pest is now, what it looks like and how to prevent its spread into Wisconsin.

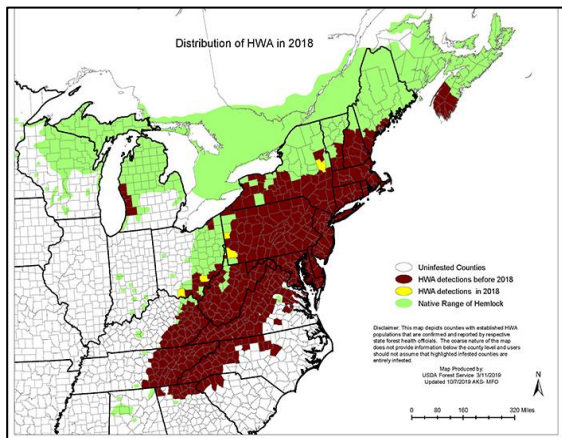


Distribution

A pest of hemlock trees (above), hemlock woolly adelgid (HWA) is native to the Asian continent. HWA has not yet been found in Wisconsin, but has become well-established in several counties in western Michigan [exit DNR]. HWA currently ranges from northern Alabama/Georgia to southern Maine and from northern California to southeastern Alaska.



In Asia, hemlock woolly adelgid does not cause much damage to native hemlocks, even when adelgid populations are high. Asian hemlock trees have developed natural resistance over time, and there are natural enemies in place that help regulate HWA populations. There is some evidence to suggest that HWA has been in western North America long enough for western hemlock tree species to become resistant to the insect. Eastern hemlock trees do not have this resistance and are highly susceptible to HWA. View [a map \[PDF exit DNR\]](#) showing areas where hemlock woolly adelgid is regulated.



How it Spreads

At present, hemlock woolly adelgid is established in only part of eastern hemlock's range in North America. On average, the insect spreads about 15-20 miles per year, the result of dispersal by wind, people, birds and other animals. HWA survives very cold temperatures in its native range. However, HWA spread and population buildup appear to be slower in colder parts of the northeastern U.S.

Signs and Symptoms

The white, cottony egg sacs of the hemlock woolly adelgid can be seen on the undersides of hemlock branches at the base of needles year-round (below). Hemlocks that are infested will develop needles that yellow and eventually fall off, leaving dead, bare branches and thin crowns. Infested trees decline and die over several years.



It is important to report trees with suspected HWA. Check out [this guide \[PDF exit DNR\]](#) for more identification tips. If you suspect that a tree is infested, please contact the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) Pest Reporting Hotline at 1-866-440-7523 or go online to DATCPestHotline@wi.gov. Individuals reporting possible HWA are encouraged to send clear, close-up photos to help with identification. For more information, visit the [DATCP HWA webpage \[exit DNR\]](#).

Biology

Adelgids are related to aphids and have a similar, complex life cycle. HWA (*Adelges tsugae*) is parthenogenic, which means all individuals are female and produce offspring without mating. In North America there are two generations per year. In the spring, adelgids hatch from a white, cottony egg sac (below) that may contain as many as 300 eggs. The adelgids crawl around until they settle at the base of a needle and begin to suck nutrients from the twig. Their saliva is toxic to the tree and eventually causes the needles to drop and the twigs to die back. They will usually remain at that feeding site for the rest of their lives. Each adult produces an egg sac in June and July.



The second generation hatches from these eggs, begins to feed and then enters a dormant period for the rest of the summer. Being a cool weather species, feeding starts again in October and continues as weather conditions allow. These immature adelgids become adults during late winter and early spring. Some of these adults are wingless and remain on hemlock trees. Others fly away to lay their eggs on spruce trees. There are no suitable spruce species in North America so these offspring do not develop successfully here.

Potential Impact in Wisconsin

Eastern hemlock (*Tsuga canadensis*) is the only hemlock species present in Wisconsin, and it has little resistance to HWA. Heavy infestations can kill trees within four to 10 years, during which time infested trees will likely be further weakened by other insects and diseases. Although some trees

recover, the mechanisms that allow for this are poorly understood. Most trees eventually die. More information on eastern hemlock in Wisconsin is available from the [University of Wisconsin-Green Bay Herbarium \[exit DNR\]](#).



Trees dead from woolly adelgid in upstate New York.

Hemlock is a long-lived, ecologically important tree that provides habitat for many wildlife species. It also helps to control stream erosion and is an important ornamental tree. In the eastern United States, heavy hemlock mortality has often resulted in altered forest structure, degraded fish habitat, and increased invasion of non-native plants.

Prevention

Hemlock woolly adelgid is classified as a [prohibited species](#) in Wisconsin's invasive species rule [NR 40](#), Wis. Admin. Code. The best way to prevent or slow the spread of hemlock woolly adelgid is to make rigorous efforts to avoid moving it to new areas. ***Public awareness and cooperation play important roles, and quarantines and mandatory inspections are also used to prevent hemlock woolly adelgid's spread on potentially hazardous hemlock wood and products.*** Suspect materials include hemlock nursery stock, logs and [firewood](#) from eastern states where hemlock woolly adelgid is present. Learn more about the [hemlock woolly adelgid quarantine in Wisconsin \[exit DNR\]](#).

Management

In infested areas, the insect can be managed on individual trees through the use of insecticides, horticultural oils and insecticidal soaps. Keeping ornamental hemlocks well-watered and healthy can help them to withstand an infestation.

In Forests

Widespread insecticide treatment in forests is not practical and salvaging dead or dying trees is the most common management technique. Some infested states apply limited insecticide treatments at sites where hemlocks have especially high ecological value.

Biological Controls

In North America there are a few native predators but they do not eat enough of the adelgids to prevent damage to hemlocks. One approach to managing hemlock woolly adelgid has been to introduce natural enemies from the insect's native range in Asia. One predatory beetle (*Sasajiscymnus tsugae*) has been mass reared and released in the eastern U.S. Its adults and larvae prey on hemlock woolly adelgid and help to reduce its numbers. Two species of predatory *Laricobius nigrinus* beetles have also been released at many locations in eastern states.

More information:

- https://www.michigan.gov/invasives/0,5664,7-324-68002_71241-367635--,00.html
- <https://mucc.org/invasive-hemlock-woolly-adelgid-threatens-michigans-forests/>
- <https://www.nps.gov/blri/learn/nature/hwa.htm>
- <https://ag.umass.edu/landscape/factsheets/hemlock-woolly-adelgid>



People Willing to Pay More to Protect the Great Lakes

<https://www.wpr.org/poll-finds-people-are-willing-pay-protect-great-lakes-amid-rising-water-quality-concerns>

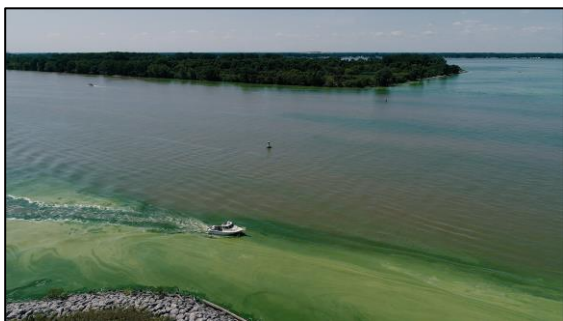


A binational poll of people in the Great Lakes region found the vast majority want to protect its waters, and they're willing to pay for improved water quality as they report growing concern for the lakes.

Canadian polling company Oraclepoll Research conducted a [telephone survey](#) for the International Joint Commission, which serves as an independent advisor to the United States and Canadian governments on Great Lakes issues. The commission conducted two similar polls in 2015 and 2018. The poll randomly surveyed around 4,500 residents in eight Great Lakes states and the Canadian province of Ontario that included around 500 Indigenous residents.

The results showed 90 percent feel it's important to protect the Great Lakes. Seventy percent are concerned about the lakes as a whole — a 17 percent jump since the commission's 2015 poll. More than half of those surveyed, 56 percent, were willing to pay \$5 or more on their water bill to benefit the lakes. "That result, in itself, is a clear indication that the improved water quality of the Great Lakes is of material value," said Jon Allan, U.S. co-chair of the commission's Great Lakes Water Quality Board.

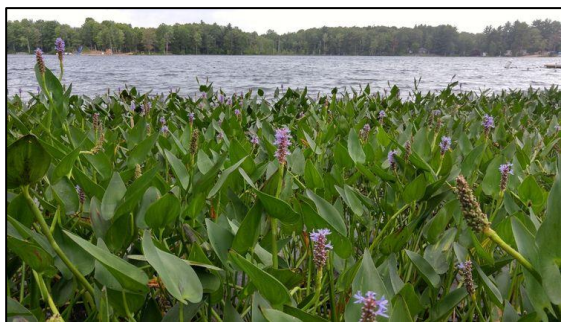
Around 41 percent of residents identify pollution from farms, industry, communities and other sources as the most significant problem facing the lakes. Nearly one in five surveyed view invasive species as the biggest issue in their nearest lake. The Great Lakes have faced threats from invaders like Asian carp and zebra mussels that place the region's [\\$7 billion fishing industry](#) at risk.



Around 36 percent feel the water in the lake closest to them was unsafe to drink. Around [40 million](#) people get their drinking water from the Great Lakes. Almost 40 percent of those surveyed feel it isn't safe to eat fish, while 40 percent feel it is safe to swim in their favorite lake. People living near Lakes Superior and Huron feel the safest swimming, eating fish or drinking water from those lakes.



The vast majority of those surveyed - 84 percent - believe everyone plays a role in protecting the health of the Great Lakes. However, more than one third of those surveyed - and more than half of Indigenous residents - feel the federal government is responsible for protecting the lakes.



"Individuals acknowledged their role as part of everyone's job to protecting the lakes, but they also recognize that there are limits to what individual actions alone can accomplish," said Allan. "More and more look to federal governments to help meet their public trust responsibilities to protect the lakes health and water quality."

In the U.S., the \$1 trillion bipartisan infrastructure bill signed into law last month by President Joe Biden includes \$1 billion for the Great Lakes Restoration Initiative, a federal Great Lakes cleanup program. Since 2010, [more than 6,000 projects](#) have been funded with [nearly \\$4 billion](#) awarded under the program. Wisconsin has received around [\\$405 million](#) for more than 500 projects that seek to clean up and restore areas along the Great Lakes.



Despite federal investment in the last decade, nearly 60 percent of residents feel there aren't enough policies and regulations to protect the Great Lakes. Almost 80 percent feel the regional economy will suffer if the conditions of the lakes deteriorate. "A majority of First Nation, Metis and Tribal Nation citizens said they are concerned about some species of cultural importance because of threats to Great Lakes health and water quality," said Kelsey Leonard, a water scientist and enrolled citizen of the Shinnecock Nation serving on the board.

Around 80 percent feel steps should be taken now to protect the lakes, compared to 95 percent of Indigenous residents. Roughly half of those surveyed also say they're willing to pay more for consumer products as part of enforcing regulations to protect the lakes. Most people surveyed make more than \$50,000 each year, according to the poll's demographics.

Around 60 percent of those who responded to the poll are white. Indigenous residents accounted for 11 percent of those surveyed and African Americans comprised 10 percent of people who took part in the poll.

The phone poll was conducted between Jan. 5 and Jan. 30 this year. A separate [online poll](#) was conducted over the summer, but it did not include a random sample of individuals.

Plastics in the Great Lakes

Excerpts from <https://www.mlive.com/public-interest/2021/09/the-great-lakes-are-awash-in-plastic-waste-what-can-be-done-about-it.html>



A collection of items found in various Great Lakes waterways and tributaries at an environmental research lab at Loyola University in Chicago.

Synthetic polymer manufacturing has changed the world. Plastics have become essential components in automobiles, electronics, construction materials, medical equipment, child safety gear, flotation devices and more in the decades since mass production began in the 1950s. Single-use plastics have become a staple of modern life and convenience culture. But the benefit comes with a cost that's mounting with every plastic bag, bottle, wrapper, cup and Happy Meal toy that enters the ecosystem as waste.

Plastic waste is rapidly accumulating in the environment, where items can persist for centuries before fully decomposing. Even bottles or straws used only for a moment will be around long after we're dead. Although some is incinerated and a larger percentage is recycled, most plastic ends up in landfills. There, researchers suspect it's breaking down into microplastics that end up in the environment once contaminated leachate is processed through wastewater plants that discharge to rivers and send biosolid sludge to be spread on cropland.



"Nurdles" are industrial plastic pellets used for making products.

What doesn't make it to landfills tends to end up in oceans, lakes and rivers. Once it's released into the ecosystem, weathering breaks plastics down into micro and nano-particles that are entering the base of the food web and the drinking source water for millions.

Increases in single-use plastic waste sparked by the COVID-19 pandemic, which has resulted in a boost in production of disposable items in demand, such as gloves, gowns, booties, masks and other protective gear, is accelerating the problem. In the Great Lakes region, researchers and policy advocates have been increasingly sounding the alarm as each passing study brings the problem into sharper focus.

Beyond the Great Lakes region, policy advocates in Washington are pressuring the U.S. government to stop buying single-use products and ban their use in some settings. In July, a group of 300 groups and organizations sent Interior Dept. Secretary Deb Haaland a letter urging her to eliminate single-use bottles, bags, cups and utensils in national parks.

For more of this story and what is being done to reduce plastics in the Great Lakes locally and nationwide, visit the link above.



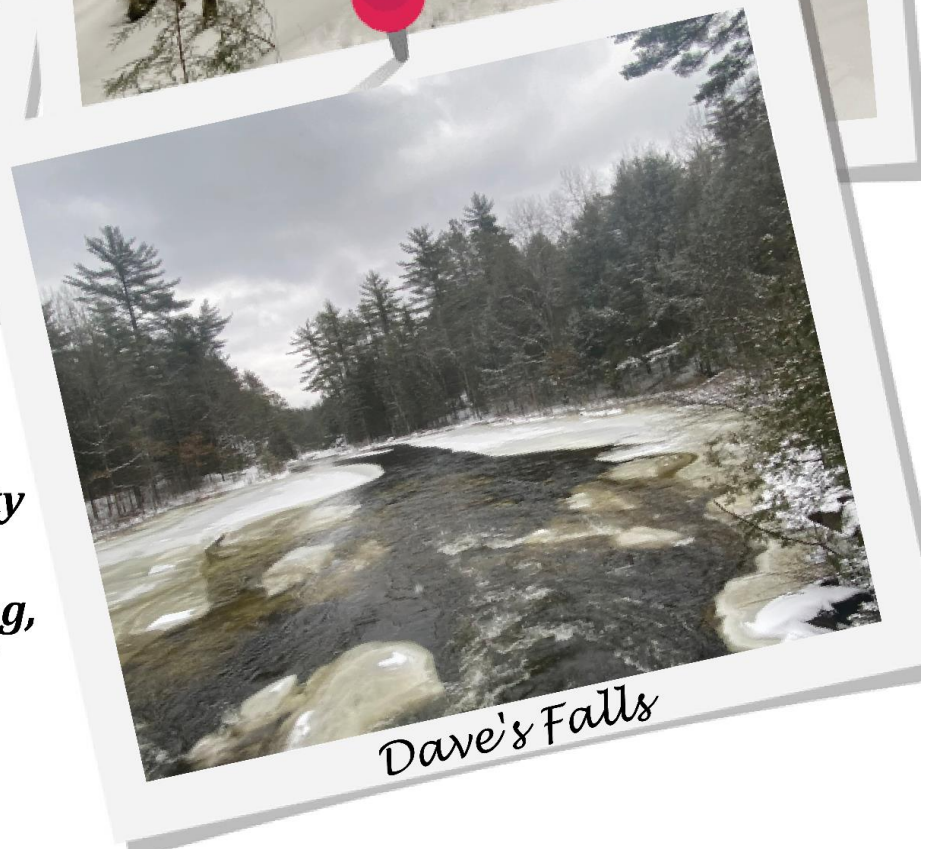
EXPLORE

Marinette County Parks

Winter transforms the landscape into a powdery playground of snowy wonder. Enjoy the changing scenery in Marinette County!



Veteran's Falls



Dave's Falls

All county parks are available for year-round recreational enjoyment. However, the following Marinette County recreation sites will be plowed and available for winter hiking, snowshoeing, waterfall viewing, access to the ice, and so much more!

Dave's Falls

Hwy 141, 9 miles N of Wausaukee

Veteran's Memorial Park

W12170 Parkway Rd, Crivitz

Lake Noquebay

(Boat Landing & Trail)

W6188 Cty Rd GG | Right of Way Rd, Crivitz

Goodman Park

N15201 Goodman Park Rd, Athelstane

McClintock Park

W14218 Cty Rd I, Athelstane

Long Slide Falls

Morgan Park Rd, Niagara



MarinetteCounty.com/parks



Marinette County Parks & Campgrounds

Contact the Parks office at 715-732-7102 or visit

<https://www.marinettecounty.com/departments/parks/general-information/campgrounds-and-parks/>



Move More, Sit Less, and Celebrate Outside this Holiday Season - and all Winter Long

<https://www.npr.org/sections/health-shots/2021/12/18/1064671395/holidays-celebrate-outside>



For many, wintertime celebrations conjure memories of gathering with friends and family, sitting cozied up around a fireplace. There is nothing wrong with getting cozy - after all, we all love some *hygge* (the Danish concept of enjoying comfort and good company in a warm atmosphere).

But we already spend too much time sitting around: [80% of American adults and youth](#) fail to meet the recommended amount of daily movement needed to stave off chronic disease and with the pandemic, adolescents spend [over seven hours a day](#) looking at a screen.

Plus the winter holiday season has become synonymous with celebrations that have us moving less while eating more — and this has been exacerbated by a long period of pandemic-related sedentarism. So this year, consider stepping outside of your usual routine and adding movement to your traditions — and bringing some of them outdoors.

Many holiday traditions have become more and more sedentary over the last few decades. As many Americans transitioned away from doing the physical labor that went into our festivities (growing and preparing foods, making gifts and decorations) there's not much left for us to do but consume what we can easily procure with a swipe of a finger.

Many people have a notion that we'll atone for holiday season sloth by focusing *extra* hard on wellness in the new year, but research shows that the physical effects of sedentary holidays [can linger indefinitely](#).

Body movement is an essential part of preventing and managing many diseases. Stepping, bending, twisting, lifting, reaching and pulling motions are integral to our body (and its parts) working well. Luckily, workouts are not the only way to increase your daily movement. You can pepper physical activity into daily life and certainly fit some into your celebrations.



The recipe for a dynamic celebration is simple. Take any typically sedentary aspect of your holiday and create a version that moves your entire body (or parts or the body) more. Many times, simply taking the activity outdoors adds movement, and it certainly adds a dose of nature. Finally, add a splash of "vitamin community" by engaging your friends and family in holiday prep and watch the movement - and joy - elevate.

Adults spend twice as much time in nature when they have friends or family who make a concerted effort to get outside. So, be the catalyst in your community! You don't have to lose the coziness of the holidays – but you can make your traditions more dynamic and take *hygge* on the move. Here are 11 ideas to try. (And bonus: socializing outdoors is also a smart idea right now given the realities of the pandemic.)



1. Forage for décor

Whether it's a wreath or a centerpiece you'd like to feature, get outside to reach, bend, and squat to gather what you need to make your own. You can even host a wreath-making party. Head out to find beautiful components on the beach (driftwood and seashells), in the woods (pinecones, acorns, chestnuts, and storm-blown boughs), even clippings from yours or a neighbor's garden like silver dollar branches or lantern plants. Then set everyone up outside with some wire, cutting tools, old jars for arrangements, a little music and snacks!

2. Walk to get groceries

No matter what you're celebrating, walking (or driving and walking part way) to the grocery store is a great way to add a bout of walking in. Even a moderately-paced walk is good for your health and lifting and carrying bags of food not only works on your arm strength, it's an easy way to add intensity without having to go faster. And walking outdoors can help you process stress and think more clearly too.

3. Plan a hiking advent

School is out for the week leading up to the Christmas holiday. Plan a week of daily hikes, text the times and starting points to friends, and enjoy this inexpensive, active socializing that gets everyone outside and off the devices. Add a forest or urban-themed scavenger hunt sheet, another day bring a thermos or two of hot cider, or set out to make or hang [edible ornaments for the birds](#).

4. Make your own candles.

Go it solo or throw a pre-holiday outdoor candle-making party - candle making just requires a little outdoor space where everyone can squat or bend down toward wax-filled containers to repeatedly dip long wicks before hanging them up to dry. These candles will not only be infused with your fine-motor movements, but also additional meaning and memory.

5. Host a gingerbread hike – or hot toddies for the grownups

Instead of the usual cookie-decorating sugar overload experience, Set up a gingerbread decorating station at a park or campground tables and lead kids there on a one to two-mile hike. Watch them lose their minds with excitement at the surprise waiting at the end of the hike (and then spend the sugar on the hike back out). The adult version: a hot toddy walk!

Create a hot drink station and have folks fill their own mug before taking a stroll through the neighborhood or woods.

6. Do some "old school" food prep

Blenders and food processors are convenient, but doing things by hand adds in some healthy movement. Consider taking time to slow down and use your arms the way previous generations did. Find an old recipe that takes a lot of effort and connect to older rituals by putting your phone-clutching muscles to broader use: shell nuts, knead some dough, roll out the pie crust and whip the meringue by hand, the way our much stronger grandmothers used to!



7. Set up a standing soup course or dessert walk

If you're having a holiday party or family meal, help guests break up an evening of chair-sitting by encouraging different positions throughout a meal. Serving soup in mugs allows guests to stand and stretch their legs as needed; a portable dessert makes taking a gentle walk or roll at the end of the meal easier.

8. Organize a winter physical games night

A lot of winter is spent sitting down and our bodies can ache with the missing movement. Schedule a short, weekly outdoor meet-up in a backyard or park where kids and adults can play catch, throw a light-up frisbee, kick a soccer ball, or if it's snowy out, have a speed snowman-building contest at dinner time. In just 90 minutes you can have a pot-luck dinner, physical activity, friend-time, fun, and outside time done before you go inside for the evening.

9. Stretch while you wrap

There's a lot of sitting to be found in daily life, but there's nothing saying it all has to be done in a chair. If you're going to spend an hour or two gift wrapping, set yourself up on the floor (add a folded blanket or cushions as needed) and move through a variety of active positions as you're working. Sitting with your legs crossed, in a V-shape, or stretched out in front of you is a simple way to care for tight leg muscles and stiff joints. Just holding up your own torso instead of resting it on the back of a chair works your core muscles more and uses more energy, too.

10. Celebrate around an outdoor fire

It's said that a fire warms you twice. The first time by doing the work to source and prepare the wood, and the second as you sit, stand, squat, or dance around it. Consider partying (New Year's Eve, perhaps?) around a firepit that warms in even the deepest of wintertime. Check with your local fire department about backyard fire pit specs; using a pre-built outdoor fireplace or the pits at your local park or campground are also great options.



Continued next page



Types of Woodpeckers Birders Should Know

Excerpts from <https://www.birdsandblooms.com/birding/bird-photography/photos-woodpecker-species/>

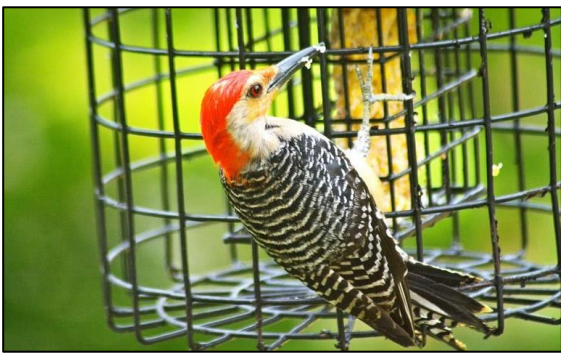


Red-Headed Woodpecker

Talk about a stunning species. This bold type of woodpecker has a large, scarlet-colored head and spiky bill - and it's skilled at catching insects midair. Both sexes sport a white belly, black back and white wing patches. Smaller than a crow, this Midwest and East Coast bird has a round, crestless head.

Red-Bellied Woodpecker

The name of this beautiful bird is misleading. Its belly is actually pale with tinges of red in the right light, and it has a black-and-white striped back with a bright red nape. Males also have a red crown. In the eastern United States where it lives, you'll spot this bird picking at bark rather than drilling into it.



Check out these [best suet feeders for winter birds](#).

Downy Woodpecker

The downy woodpecker is the smallest and most common type of woodpecker, living year-round in most of the U.S. except the extreme Southwest. Slightly smaller than a robin, this cute bird has a pale belly, checkered black-and-white head and back, and a surprisingly short bill for a woodpecker. Males show a flash of red at the back of their heads.



Hairy Woodpecker

While its markings are similar to the downy's, the hairy woodpecker is about one-third larger, close to the size of a robin. Its chisel-shaped bill is prominent, about the same length as its head. Its coloring varies across North America, and at times it appears to be stained with brown watercolors and has less spotting. Learn [how to tell the difference between downy and hairy woodpeckers](#).



Northern Flicker

With markings unlike those of any others on this list, northern flickers have a black bib, spotted belly, white rump and a brownish gray back patterned with spots, bars and crescents. Males also may show red or black whiskers, a red nape crescent and stripes of yellow or red throughout their tail feathers. Larger than a blue jay and found across North America, this bird often forages on the ground.



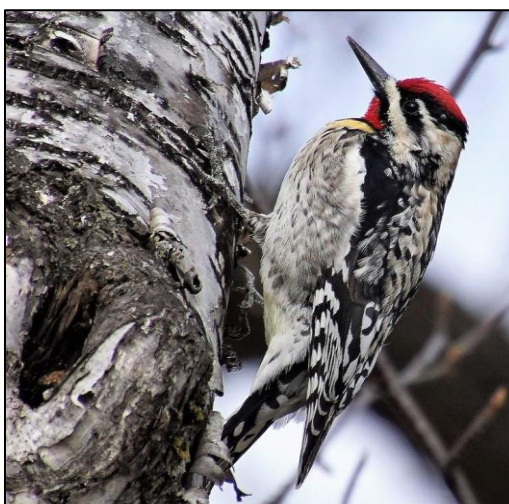
Pileated Woodpecker

The pileated woodpecker is a behemoth and striking to behold. As soon as you spot one, you'll know. With a flaming red triangular crest, large size (nearly 20 inches!) and a wingspan close to 30 inches, this is the largest type of woodpecker in North America. Pileateds specialize in foraging for carpenter ants, [drilling distinctive square holes into trees](#). They're found in Canada, the eastern U.S. and along the West Coast.



Yellow Bellied Sapsucker

It's hard to see when they're foraging, but these sapsuckers do have hints of pale yellow on their stomachs. The size of a grosbeak, this bird is white and black with a red-peaked forehead and a short, sturdy beak; males also sport a red throat. Drilling holes in bark, they suck up the tree's sugary sap, hoping to snatch up insects. They are found throughout the eastern half of North America.



Want to see more woodpeckers in your yard? Here's [how to make a pine cone bird feeder](#) and check out [the 4 best foods for attracting woodpeckers](#).

Also visit <https://www.audubon.org/>, <https://www.birds.cornell.edu/home/>, or <https://wsobirds.org/> for more about woodpeckers in Wisconsin.



Move More, continued from page 10

11. Volunteer dynamically

In addition to monetary donations, consider donating your physical movement this season. Do some heavy lifting at your local food bank, pack meal boxes at a soup kitchen, or get your bends and twists via a community clean-up. Find opportunities in your area by searching online databases like www.volunteermatch.org/ and [https://createthegood.aarp.org/](http://createthegood.aarp.org/).



For more ideas about staying active this winter, especially with kids, visit:

- * <https://www.12minuteathlete.com/get-moving-outdoors-this-winter/>
- * <https://www.cbc.ca/parents/play/view/50-outdoor-things-to-do-with-your-kids-in-winter>
- * <https://www.takethemoutside.com/outdoor-winter-activities-for-toddlers/>
- * <https://theinspiredtreehouse.com/winter-activities-kids-2/>
- * <https://runwildmychild.com/winter-nature-walk-ideas-for-kids/>



https://www.massaudubon.org/content/download/45330/1139484/version/1/file/MassAudubon_winter-bingo-cards.pdf



Study Finds More than 1M Tons of Salt is Flowing into Lake Michigan Each Year

<https://www.wpr.org/study-finds-more-1m-tons-salt-flowing-lake-michigan-each-year>



More than 1 million metric tons of salt is flowing into Lake Michigan each year, according to a [new study](#) from the University of Wisconsin-Madison. The findings come as the state has been making significant strides to reduce salt use on roads to curb pollution.

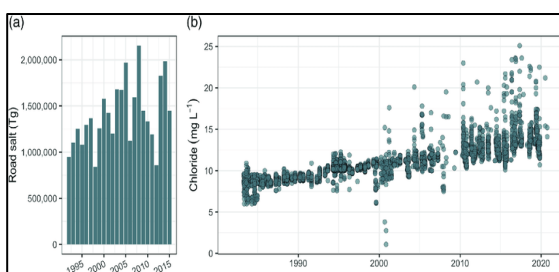
Researchers examined past and current water data on the amount of salt flowing into the lake from 234 rivers and streams, according to Hilary Dugan, the study's lead author and assistant professor for the Center for Limnology at UW-Madison.

"There's a tremendous amount of salt going into the lake each year," said Dugan. "But because of the volume of Lake Michigan, that concentration is still pretty low." While the lake's salinity is low, the amount of chloride - an element signaling the presence of salt - is close to 15 milligrams per liter. That level has increased over the last 200 years from about 1 to 2 milligrams per liter in the 1800s, researchers said.

Levels of roughly [250 milligrams per liter](#) have been known to affect the taste of drinking water and harm freshwater organisms. Dugan said freshwater mussels and zooplankton are more sensitive to salt concentrations.

"It's good to know that what we're seeing is not catastrophic by any means, but we should be aware that it is increasing," said Dugan. "It could have some repercussions that we're not fully aware of yet."

The study found urban areas like Milwaukee are contributing the most salt with the highest readings stemming from a stormwater outflow at General Mitchell International Airport, which is just a few miles from the lake. Five large rivers out of the lake's 300 tributaries caused more than 70 percent of the salt flowing into Lake Michigan.



(a) Estimated road salt use in the Lake Michigan basin (derived from Bock et al. 2018). (b) Chloride concentrations in Lake Michigan collected by multiple agencies across multiple sites. Data are from the U.S. Water Quality Portal (Dugan and Mooney 2021). From https://www.researchgate.net/figure/a-Estimated-road-salt-use-in-the-Lake-Michigan-basin-derived-from-Bock-et-al-2018_fig1_357077006.

Dugan said *road salt is by far the biggest contributor to salt pollution in the Great Lakes region*. In the last several years, the Wisconsin Department of Transportation has been working to reduce salt use on the state highway system to curb pollution. **Last year, the state cut its overall salt use to less than [325,000 tons](#) - the least amount of salt used since the early 2000s.**

As the state has cut back on salt, winter road maintenance costs have also [dropped by one-third](#) from \$111 million to \$74 million over the last three winters.

"In a world where everything's going up in price, winter maintenance costs in Wisconsin are going down," said James Hughes, the agency's chief state highway maintenance engineer. "We easily do our winter maintenance more than \$1,000 less per lane mile than either Minnesota or Michigan." Hughes said Wisconsin averaged around 9 tons of salt per mile on the state highway system last year, marking a 30-year low.

Groups have been pushing the state to reduce salt use to protect the environment, including **Wisconsin Saltwise** (see page 2). "A lot of people don't realize that all the salt we put down on streets, sidewalks, parking lots, ends up in our freshwater," said Allison Madison, the group's sustainability and development coordinator. Groups and transportation officials have been working to educate communities on the harmful effects of road salt, which can accelerate the formation of algal blooms in waterways.



Road salt spray can damage vegetation near roadways. Browning and branch dieback on the side of a plant that faces a road or sidewalk is a common sign of salt damage. Salt can also impair roadside soils by displacing minerals or absorbing water, a condition referred to as physiological drought.

Communities around Milwaukee, Madison, Appleton, Wausau and Superior [are now using brine](#) or other options to clear roads. Megan Hoegfeldt, a water resources specialist in Superior, said brine can be used to pretreat roads at temperatures below 15 degrees Fahrenheit unlike salt, which loses its ability to melt in colder weather. "It's this nice liquid layer that soaks into the clear driveway or sidewalk or roadway, and then it prevents that buildup of ice and snow on the road," Hoegfeldt said. "That's a big game changer."

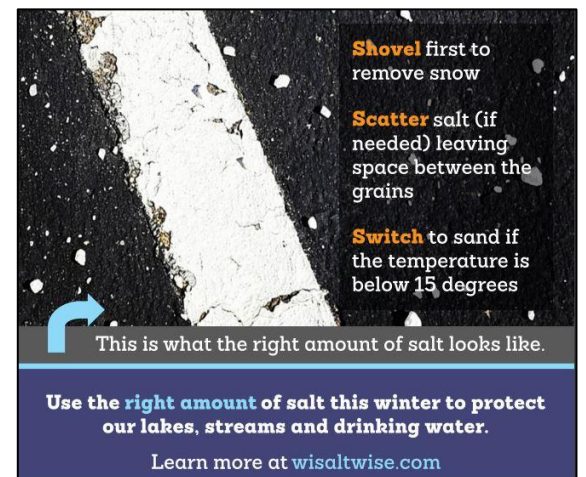
Hughes said brine doesn't work for every winter storm, but it can cut the amount of costs and labor necessary to clear highways without compromising safety. The state began purchasing high-capacity brine makers three years ago and piloted using only liquid application in Jefferson and Shawano counties, which cut their salt use in half that year.



Last year, the state used a record 11.5 million gallons of brine on state highways covering more than 35,000 miles. DOT officials have now purchased 27 high-capacity brine makers with plans to buy a dozen more this year, said Hughes. "Everybody wants to see people get home safe. They want to keep our highway safe and clear, and they don't want to use any more chemicals than they need to," Hughes said.

Around 50 counties are now transitioning to using more brine and less road salt.

Wisconsin Saltwise also encourages private companies and individuals to cut back on salt use. Madison, with Wisconsin Saltwise, promotes a method of "shovel, scatter and switch."



"Shovel first. Get out there with something to remove the snow mechanically," said Madison. "Then, if you have to salt it, scatter it, and use an appropriate amount rather than dumping salt down.... One 12-ounce mug of salt is enough for a 20-foot driveway." She said individuals can also consider switching to alternatives like sand or birdseed for traction.



Over-salting is for the birds. When temps are below 15 degrees, salt doesn't work to melt snow and ice. Support feathery friends AND protect freshwater by using birdseed for traction instead.

More resources:

- <https://www.wisaltwise.com/> (see page 2)
- <https://news.wisc.edu/study-finds-that-not-even-the-largest-lakes-in-the-world-are-safe-from-salt/>
- <https://saltsmart.org/>
- <https://news.climate.columbia.edu/2018/12/11/road-salt-harms-environment/>
- <https://earthdevelopmentinc.com/blog/top-5-eco-products-for-snow-ice-removal>
- <https://www.mprnews.org/story/2019/02/12/are-there-eco-friendly-alternatives-to-road-salt>



Infrastructure Bill Will Help Address a Cleaner Future for Birds and People in the Great Lakes Region

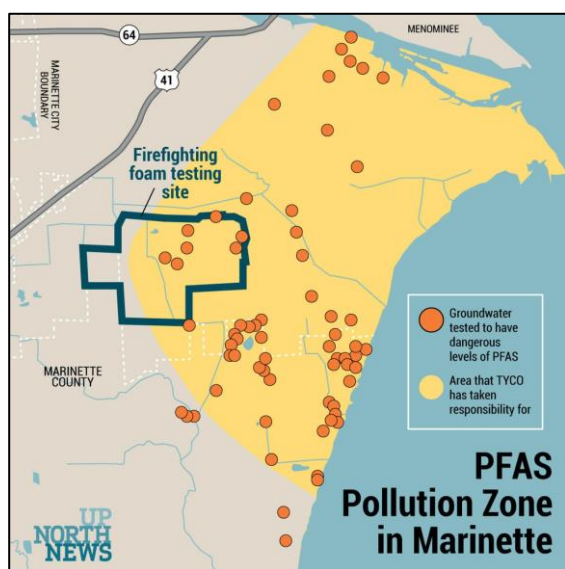
<https://gl.audubon.org/news/infrastructure-bill-will-help-address-cleaner-future-birds-and-people-great-lakes-region>

In November, President Biden signed into law the Infrastructure Investment and Jobs Act (IIJA, [H.R. 3684](#)). Much has been reported on how this bipartisan infrastructure package paves the way for historic investments in roads and bridges, but it is also brings much needed funds to restore the Great Lakes and rebuild failing drinking and wastewater systems. Securing a better future for the birds and people of the Great Lakes region has never been more important. As the largest freshwater ecosystem on the planet, the Great Lakes provides drinking water to 40 million people and serve as a global resource to millions of birds.



Seagull Bar State Natural Area (by Red Arrow Park in Marinette) is considered critical habitat for the endangered Piping Plover.

Out of the \$1.2 trillion the Infrastructure Act puts to work, \$50 billion goes toward drinking water and wastewater infrastructure to fund things like the removal of lead service lines and addressing PFAS (manmade persistent chemicals) contamination. It will still be important to ensure these investments are implemented in an equitable manner at the state level so that communities who have disproportionately borne the burden of disinvestment and unsafe water get the help that is required to ensure safe and clean water for all.



The bill also includes an unprecedented \$1 billion for the Great Lakes Restoration Initiative (GLRI). Since 2010 the GLRI has provided federal funding to strategically target the biggest threats to the Great Lakes ecosystem and has been critical to Audubon's efforts to restore functional coastal wetlands across the region.



The Menominee River, the interstate bridge linking WI and MI, and Lake Michigan in the background

Coastal habitats of the Great Lakes are disproportionately important for the birds that breed in the rich wetlands and for those that stopover during their bi-annual migrations across the Lakes. Coastal sites are critical for people as much as they are for birds. They represent areas where river mouths and marshes meet the Lakes and where communities were formed to make use of rich natural resources and the ease of waterway transportation.



Cleaning up our industrial legacies and creating natural infrastructure that absorbs and cleans water as it enters the Lakes is doing wonders to help recover our declining populations of wildlife, while building a clear path to climate resiliency in the Great Lakes.



The Lower Menominee River was designated as a Great Lakes Area of Concern under the 1987 Great Lakes Water Quality Agreement. Cleanup was completed in 2015 and the removal of sediment contaminated with arsenic reduced aquatic wildlife's exposure to arsenic and creates a healthier benthic (bottom) community. Deeper waters due to sediment removal have also improved boating opportunities, and routine navigation is no longer impeded by pollution.

Threatened bird species such as the Piping Plover (at left) and Black Tern are dependent on healthy coastal and wetland systems. Thanks to this investment in the Great Lakes Restoration Initiative their future is brighter. The infrastructure bill is a victory for the Great Lakes and the 40 million people AND 350 bird species who depend on them to survive.

For more information about the bill and related topics from the article, visit:

- ✓ <https://www.audubon.org/news/the-infrastructure-bill-injects-billions-repairing-and-reconnecting-habitats>
- ✓ <https://wildearthguardians.org/press-releases/bipartisan-infrastructure-bill-directs-vital-funding-to-national-forests-roads/>
- ✓ <https://www.glri.us/> - Great Lakes Restoration Initiative
- ✓ <https://www.audubon.org/important-bird-areas/seagull-bar>
- ✓ <https://www.glc.org/news/infrastructure-111521> - Great Lakes Commission
- ✓ <https://www.epa.gov/great-lakes-aocs/lower-menominee-river-aoc>
- ✓ <https://www.michiganseagrant.org/topics/ecosystems-and-habitats/coastal-habitats/> - MI Sea Grant

Monarch Population Soars 4,900 Percent since Last Year in Thrilling 2021 Western Migration

Excerpts from:

<https://www.goodnewsnetwork.org/monarch-population-soars-4900-percent-since-last-year-in-thrilling-2021-western-migration/>

I know it's January, but this is great news about the western population of Monarch butterflies. Just had to share the news – it's a wonderful Christmas present to all of us!



When just 200 Western monarch butterflies arrived in the Pismo Beach Butterfly Grove (CA) from their northerly migration last year, park rangers feared the treasured insect would soon be gone forever. **It's expected that the monarch butterfly will be placed on the Endangered Species List soon, due to declines in both western and eastern monarch butterfly numbers.** Genetically indistinguishable, they are separate merely for the fact that monarchs living and migrating east of the Rockies overwinter in Mexico, while those on the western side of the Rockies overwinter along California's west coast.

This year, the monarchs arrived early - and in droves. The Xerces Society for Invertebrate Conservation held their annual Thanksgiving count, and volunteers arriving at the break of dawn to count butterflies still lying quietly on tree trunks found a living curtain of orange and black. **Early estimates put the tally at 100,000 individuals.**

Xerces says the Biden Administration's spending bill includes \$10 million over five years to be given for building monarch habitat west of the Rockies, such as replenishing the population of native milkweed plants, particularly along highways and power lines where nothing else is being done with the land. Providing funding for roadside pollinator habitat can help bees, monarch butterflies, and other flower visitors.

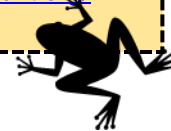


Individuals can also make a real difference by planting nectar-producing flowers - but not milkweed. *Sometimes milkweed is sold in non-native varieties, which can distract migrating butterflies along their route.* So, unless a gardener know the difference between the two, planting nectaring flowers will, instead, provide valuable food sources along their long migration journey.

The butterflies will gain significant protection if named to the U.S. Fish and Wildlife Service's endangered list: **it is the single most-effective conservation program in the world, with 99% of the almost 300 listed species in its history avoiding extinction.**

For more information, visit:

- <https://www.xerces.org/press/infrastructure-bill-is-win-for-bees-and-butterflies-including-monarchs>
- <https://baynature.org/2021/12/08/seemingly-headed-for-extinction-in-2020-western-monarchs-boom-back-in-2021/>
- <https://www.westernmonarchcount.org/>



DNR Urges Ice Anglers to Protect Waterways from Aquatic Invasive Species

<https://dnr.wisconsin.gov/newsroom/release/52211>



The Wisconsin Department of Natural Resources (DNR) and UW-Extension are asking anglers to help prevent the spread of aquatic invasive species when ice fishing this winter.

While aquatic invasive species have made their way into Wisconsin's waterways, anglers can reduce transmission by checking for and removing any mud or plant material clinging to their gear, including sleds used to haul supplies, before leaving fishing spots.

Invasive species are non-native plants, animals and diseases that cause great ecological, environmental or economic harm. Aquatic invasive species can crowd out native plants and animals and threaten the quality of boating and fishing in Wisconsin waters.

Two common non-native aquatic plants in Wisconsin include the curly-leaf pondweed (below) and Eurasian watermilfoil, which remain hardy in winter giving them an advantage over native aquatic plants. Although the plant-like algae starry stonewort, a relative newcomer aquatic invasive species in Wisconsin, dies back for winter, its tiny, star-shaped bulbils may be present in the mud drawn up from augers. The larvae of invasive snails and mussels can also be found in the water and mud during winter.



[For more information about aquatic invasive species, including where they are prohibited and restricted in Wisconsin, visit this DNR webpage.](#)

A few minutes of preventative action can help preserve and protect waterways for generations to come. Before stepping onto the ice to fish and when leaving, ice anglers should:

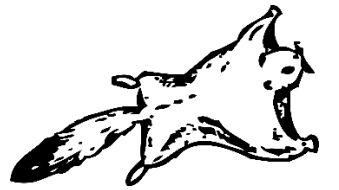
- **Inspect** boats, trailers and equipment for attached aquatic plant, animals or mud
- **Remove** all attached plants or animals
- **Drain** all water from boats, motors, livewells, buckets and other equipment
- **Never move** live fish away from a waterbody
- **Dispose** of unwanted bait in the trash

[To view all current fishing regulations, click here.](#) The DNR would like to thank every angler for following the recommended prevention steps. These actions are vital to keeping your favorite fishing spot safe and accessible for years to come.

Contact: Jeanne Scherer, UW-Extension Aquatic Invasive Species Outreach Specialist
jeanne.scherer@wisc.edu or 608-720-0195

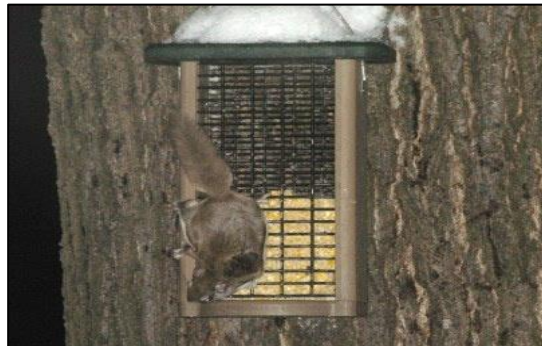
How to Spot Common Winter Wildlife

<https://www.birdsandblooms.com/gardening/backyard-wildlife/common-winter-wildlife/>



As winter deepens and the cold winds blow, you might think all the creatures have fled to warmer climates until spring. In reality, there are plenty of wildlife visitors. Be on the lookout for these species and their signs this winter.

Flying squirrels are active all winter, but you've probably never seen one because they're nocturnal. Unlike their cousins the gray squirrels, flying squirrels rarely come down to the ground. These cute little tree rodents are omnivores, but when insects and birds' eggs aren't available in winter, they subsist on the normal squirrel fare of seeds and nuts. Leave a feeder out at night and spread some peanut butter on a nearby tree trunk. Then watch and wait for them to glide in for a treat.



Weasels, mink, and fishers belong to the mustelid family. These cousins range from the least weasel, weighing less than two ounces, to the fisher, which can weigh more than 10 pounds. The most common is the long-tailed weasel, found across the country. Mustelids are pretty elusive, especially northern species of least and long-tailed weasel, both of which sport white fur in the winter. But if you're patient, observant and lucky, you might see one, especially if you have brush piles in your yard. Look for tracks in the snow.



Above: long-tailed weasel; below, a fisher.



Many **hawk** species are migratory. Some, however, such as red-tailed hawks, stick around all winter. You can spot them in deciduous trees that have lost their leaves. Look for them in the treetops scanning the ground for small mammals and other birds to prey on. Unlike hawks, many **owls** are not migratory. Great horned, barred and screech-owls can be easier to spot in bare trees.

Some species, however, do migrate, and your only chance of spotting them is in the winter. Both long-eared and saw-whet owls (below) may migrate some distance south in fall, and could possibly show up in your backyard. Both like to roost in dense strands of evergreens.



Above: long-eared owl; below, saw-whet owl.



You won't find any **adult mantises** in winter, but they've left signs of life behind. Like many insects, these garden predators die off when there's a freeze, but the next generation lives on in **egg cases** that were laid the previous summer or fall. Praying mantis egg cases are fairly large and pretty easy to spot: they look like scraggly gray Ping-Pong balls attached to old wildflower and grass stems, or the twigs of trees and shrubs. As soon as the weather warms in spring, the eggs will hatch, and hundreds of miniature mantises, will disperse to begin hunting.



Winter Wildlife ID Tips

Check for these signs of wildlife in your backyard.

TRACKS. Look for footsteps in the snow or mud. Snap a picture and use a track field guide or website to help identify them.

CHEW OR BITE MARKS. Deer, rabbits, beaver and other wildlife each leave distinctive bite marks on the plants they eat.

SOUNDS. Learn the songs, calls or yelps made by songbirds, owls and even mammals like foxes to help you figure out what's nearby.

